



IIT Kanpur and The Robotics Society (India) Winter School on "Robotics and Autonomous Systems" 02 to 05 April 2019

Organized by:

- Center for Mechatronics,
IIT Kanpur, Kanpur-208016
- The Robotics Society (India)

Course Co-ordinators:-

Dr. Ashish Dutta

Professor,
Dept. of Mechanical Engineering,
IIT Kanpur
Webpage: <http://home.iitk.ac.in/~adutta/>

Dr. Anjali Vishwas Kulkarni

Principal Research Engineer,
Center for Mechatronics, IIT Kanpur
Webpage: <http://home.iitk.ac.in/~anjalik/>

Tentative Speakers

Prof. Asokan T., IIT Madras

Prof. S. K. Saha, IIT Delhi

Prof. Santanu Choudhury, IIT Delhi

Prof. Mangal Kothari, IIT Kanpur

Prof. S R Sahoo, IIT Kanpur

Prof. K S Venkatesh, IIT Kanpur

Prof. Ashish Dutta, IIT Kanpur

Prof. Bhaskar Dasgupta

Prof. L. Behera

Prof. Abhishek, IIT Kanpur

Prof. Indranil Saha, IIT Kanpur

Mathworks - MATLAB

Sponsors:

DST—UKIERI

The Robotics Society (India)

Centre for Mechatronics (IIT Kanpur)



Objectives:

The next decade will be shaped by the five digital forces of: Robotics and AI, cloud computing, big data analytics, mobile and pervasive computing and social media. Robotics and autonomous systems is an interdisciplinary engineering field which connects the classical branches of mechanical, electrical engineering and computer science/information technology. Its applications range from machine tools, autonomous cars, drones, biomedical engineering, industrial automation, medical robotics and exoskeletons, Machine learning and AI, etc. The main objectives of this course is to first give the participants an introduction to the basic kinematics and dynamics of Robotic systems and then focus on a few advanced topics related to autonomous robotic systems applications. A practical session of Matlab based integration of hardware and software is also included for real world applications. Each day will have a focussed theme on a particular area.

Focused Areas to be covered:

Robot Kinematics and Dynamics, Motion planning of autonomous robotic systems, Medical robotics and Exoskeleton System design, control and design of autonomous Ground and Ariel Vehicles, Machine Learning and AI in Robotics and autonomous systems.

Eligibility Criteria

Bachelor's degree (Masters Preferred) in Mechanical/ Electrical/ Electronics/ Computer Science/ Mechatronics/ Instrumentation with some exposure to Robotics or autonomous systems.

Registration Process

To register for this event, please fill the given form on the website.

<http://www.iitk.ac.in/robotics/winter-school/>

Registration Fees (+ 18 % GST to be paid)

Students INR 5,000/- (without accommodation and food)
Students INR 8,000/-

Teachers/ Faculty INR 10,000/-

Industry/ R&D INR 15,000/-

Important Dates

Application Deadline: 14th January, 2019.

Acceptance Notification: 15th January, 2019.

Appropriate registration fee can be paid as given in the website.